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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/796,519	02/07/1997	HIROYUKI INOUE	684.2213-DIV	9056
7590 04/28/2005				
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10172		EXAMINER NGUYEN, LAM S		
		ART UNIT PAPER NUMBER		
		2853		

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

1

Office Action Summary

Application No.

08/796,519

Applicant(s)

INOUE ET AL.

Examiner

LAM S. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 154-156, 158-176, 180 and 207-215 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 154-156, 158-176, 180 and 207-215 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 1997 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/519,730.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/28/04, 01/13/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The indicated allowability of claims 154 and 210 is withdrawn in view of the newly discovered reference(s) to Takise (JP 4-32577). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 154-156, 162, 164-169, 171-176, 180, 208-214 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oda et al. (US 5552816) in view of Takise (JP 4-32577).

Oda et al. discloses a liquid container (*FIG. 1, element 22*) for an ink jet recording apparatus, capable of containing liquid to be used by an inkjet head (*FIG. 1, element 16*), wherein said liquid container is detachably mountable to a holder (*FIG. 1, element 11*) having the ink jet head and an ink supply tube for directing liquid to the ink jet head (*FIG. 1, element 19*), said liquid container comprising:

a main body, provided with an ink accommodating member, for containing a liquid (*FIG. 1, element 22*);

a supply port (*FIG. 1, element 21a*) for supplying the liquid to the recording head, said supply port being disposed in a side which faces said ink supply tube (*FIG. 1, element 19*) when said liquid container is mounted in the holder (*FIG. 1, element 11*), wherein said ink accommodating member faces said ink supply port;

a first engaging portion (*FIG. 1, element 22a (left)*), provided on a first side of said main body, adapted to engage with a first locking portion (*FIG. 1, element 13c (left)*) of the holder, and

Oda et al. also discloses a second engaging portion provided on a second side of said main body that is opposite to the first side and adapted to engage with a second locking portion of the holder (*FIG. 1, elements 22a and 13c (right)*), wherein said supply port is disposed between the two engaging portions (*FIG. 1, element 21a*).

However, Oda et al. does not disclose an elastic supporting member having a second engaging portion at an outside thereof adjacent of a second side of said main body opposite of the first side adapted to engage with a second locking portion of the holder (**Referring to claim 154**), or a supporting member resiliently supported by said main body and being extended in front of a second side opposite said first side and having a second engaging portion at an outside thereof facing away from said second side of said main body and capable of moving away from and towards said second side which said second engaging portion is adapted to engage with the second locking portion of the holder (**Referring to claim 210**), wherein when said supporting member is provided with an operating portion for facilitating mounting or demounting said liquid container in the holder (**Referring to claim 162**), characterized in that said second engaging portion is in the form of a projection, having a height of approximately 1 mm, extended from said elastic supporting member and contactable to a part of the holder (**Referring to claims 164, 167**), wherein said supporting member is in the form of a latch lever which is extended upwardly/downwardly from a portion adjacent to a bottom/top portion of said second side and which is spaced apart from said second side (**Referring to claims 165-166, 211-212**), wherein

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said supporting member resiliently moves toward said main body when said container is mounted or demounted relative to the holder (**Referring to claim 171**), wherein said supporting member is extended upwardly integrally from neighborhood of a bottom portion of said main body, and is resiliently movable about the neighborhood, and that said second engaging portion is disposed between the neighborhood and an operating portion provided at a free end of said elastic supporting member (**Referring to claims 172, 180**), wherein when said liquid container is mounted to the holder, said second engaging portion is inside the second locking portion of the holder, and is not extended outwardly (**Referring to claim 173**), wherein said latch lever is curved or bent toward said main body (**Referring to claim 208**).

Takise discloses a printing apparatus having an ink cartridge (*FIG. 3, element 51*) attached or detached on a holder (*FIG. 3, element 60*), wherein the ink cartridge has a first engaging portion is provided on a first side for pivotally holding the ink cartridge during mounting (*FIG. 3a, element 56*) and an elastic supporting member resiliently supported and being extended in front of another side of the ink cartridge (*FIG. 3a, element 55*). The elastic supporting member has a second engaging portion (*FIG. 3a, element 54*) at an outside thereof facing away from the side, capable of moving away from and towards the side, and adapted to engage with a locking portion (*FIG. 3a, element 69*) of the holder and an operating portion for facilitating mounting or demounting said liquid container in the holder provided at a free end of the elastic supporting member (*FIG. 3a-c, element 55*). The elastic supporting member is in the form of a curved or bent latch lever which is extended upwardly/downwardly from a portion adjacent or a neighborhood to a bottom/top portion of a side and which is spaced apart from the side (*FIG. 3a-c: The side is a surface of the ink cartridge 51 where the elastic nail 55 is attached*

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thereto), wherein the second engaging portion is positioned between the neighborhood and the operating portion (*FIG. 3a-c, elements 54-55*), wherein the supporting member resiliently moves toward the main body of the ink cartridge 51 when the ink cartridge is mounted or demounted relative to the holder (*FIG. 3a-c: The elastic nail 55 moves toward the ink cartridge 51 to mount or demount the ink cartridge from the holder 60*), wherein when the ink cartridge is mounted to the holder, the second engaging portion is inside the locking portion of the holder, and is not extended outwardly (*FIG. 3b, elements 54, 69*). In addition, since there is no evidence of the criticality of the height of the projection, the difference in the height of the prior art and claimed projections will not support the patentability of the claimed projection).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to replace one of two engagement portions disclosed by Oda et al. by the elastic nail and the other by the engaging portion for pivotally holding the ink container during mounting as disclosed by Takise. The motivation for doing so is to enable manipulation with a single hand to load and unload the ink cartridge to or from the holder with safety and ease as taught by Takise (*See page 8, third paragraph of the translation*).

Oda et al. also discloses the following claimed invention:

Referring to claim 156: wherein said main body accommodates a negative pressure producing material for retaining the liquid (*column 9, lines 55-60*).

Referring to claim 155: wherein said liquid container comprises an air vent portion for fluid communication between the inside of said main body and the ambience (*column 9, lines 23-25, FIG. 1, element 23a*).

Referring to claims 168-169, 213-214: characterized in that a normal line from a central portion of said supply port to a line connecting a central portion of said first engaging portion and a central portion of said second engaging portion is not more than 10 mm (Since there is no evidence of the criticality of the value of the distance, the difference in the length of the distance of the prior art and claimed structure will not support the patentability of the claimed invention).

Referring to claim 174: wherein an inclined surface is provided at a corner portion between a bottom side, in operation, of said main body and said first side (*FIG. 1: The inclined bottom surface of the ink container 22*).

Referring to claims 175-176: characterized in that said supply port and said elastic supporting member are protected by a protection member during transportation of said liquid container, and characterized in that said protection member has a sealing member for sealing said supply port of said a liquid container (Since the protection member is not part of the liquid container, the claimed element is considered but not given patentable weight).

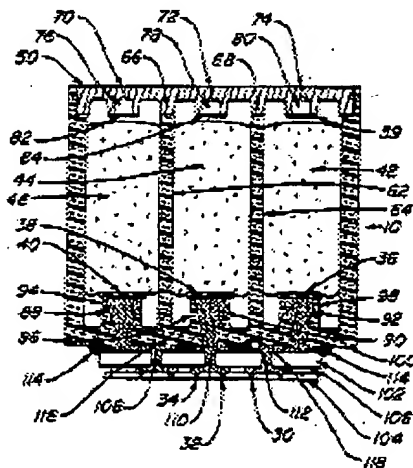
Referring to claim 209: wherein said first engaging portion and said second engaging portion are engaged with said first locking portion and said second locking portion, respectively, to establish fluid communication by pressure between said ink accommodating member and said ink supply tube (*FIG. 1: The ink communication is established between the ink container 22 and the ink tube 19*).

2. Claims 158-161, 207 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oda et al. (US 5552816) in view of Takise (JP 4-32577), as applied to claims 154 and 210, and further in view of Baker et al. (US 4771295).

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Oda et al., as modified, discloses the claimed invention as discussed above except wherein said supply port is provided with fibrous material, wherein said main body contains black ink, wherein the inside of said main body is divided into three portions disposed along a direction from said first side to said other side, and said supply port and said air vent portion are provided for each of said three portions, and wherein said three portions contain yellow ink, cyan ink and magenta ink, respectively.

Baker et al. discloses a thermal ink jet pen body having an ink container (*FIG. 2*), wherein the ink container is either a single compartment black ink storage or a multiple ink (yellow ink, cyan ink, and magenta ink) storage compartment (*Abstract*). The ink storage has an ink supply port (*FIG. 2, elements 88, 90, 92*) provided with fibrous material (*FIG. 2, elements 36, 38, 40*) and an air vent (*FIG. 2, elements 70, 72, 74*). In addition, the inside of the multiple ink compartment storage is divided into three portions disposed along from one side to another side of the compartment (*FIG. 2, elements 42, 44, 46*), and the supply port (*FIG. 2, elements 88, 90, 92*) and the air vent portion (*FIG. 2, elements 70, 72, 74*) are provided for each of said three portions.



Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the ink container disclosed by Oda et al., as modified, to contain black or color ink storages for color printing purpose and provide the air vent and the ink supply port with fibrous material for each ink storage as disclosed by Baker et al. The motivation of doing so is to provide an atmosphere pressure to ink and to provide good filtration of air bubbles and solid particles when inks passing from the ink storages to the ink pens as taught by Baker et al. (*column 2, lines 35-43*).

3. Claims 163, 170 and 215 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oda et al. (US 5552816) in view of Takise (JP 4-32577), as applied to claims 154 and 210, and further in view of Wada (EP 546832 A2).

Oda et al., as modified, discloses the claimed invention as discussed above, but is silent wherein said supply port is on a line connecting a central portion of said first engaging portion and a central portion of said second engaging portion, and when said container is mounted on the holder, said second engaging portion takes a position above said first engaging portion.

Wada et al. discloses an ink container having engaging portions and in ink supply port, wherein said supply port is on a line connecting central portions of said engaging portions (*FIG. 2*). In another embodiment, Wada et al. discloses an ink container having two engaging portions, wherein when said container is mounted on the holder, an engaging portion takes a position above the other (*FIG. 24, elements 1005a and 1007a*).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the ink container disclosed by Oda et al., as modified, to

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locate the ink port on the line connecting the centrals of the engaging portions as disclosed by Wada et al. as a common or alternative structure well known in the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN
April 25, 2005



HAI PHAM
PRIMARY EXAMINER